

10/525019

GIES3002.ST25  
SEQUENCE LISTING

<110> Giesing, Michael  
Suchy, Bernhard

<120> METHOD FOR ANALYZING BODY FLUIDS FOR THE PRESENCE OF CANCER  
CELLS, USE THEREOF, CORRESPONDING ANALYSIS KITS, AND USE OF  
SPECIFIC ACTIVE SUBSTANCES FOR TREATING CANCER

<130> GIES3002

<140> 10/525,019  
<141> 2005-02-18

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<151> 2003-08-20

<150> DE 102 38 046.5  
<151> 2002-08-20

<160> 22

<170> PatentIn version 3.3

<210> 1  
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<212> DNA  
<213> Artificial

<220>  
<223> forward primer (MNSOD)

<400> 1  
gtcaccgagg agaagtacca gg 22

<210> 2  
<211> 20  
<212> DNA  
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<220>  
<223> reverse primer (MNSOD)

<400> 2  
gggctgaggt ttgtccagaa 20

<210> 3  
<211> 27  
<212> DNA  
<213> Artificial

<220>  
<223> probe (MNSOD)

<400> 3  
cgttggccaa gggagatggt acagccc 27

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<212> DNA  
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<220>  
<223> forward primer (TXNRD1)

<400> 4  
 ggagggcaga cttcaaaagc tac 23

<210> 5  
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<220>  
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 acaaagtcca ggaccatcac ct 22

<210> 6  
 <211> 26  
 <212> DNA  
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<220>  
 <223> probe (TXNRD1)

<400> 6  
 ttgggctgcc tccttagcag ctgcca 26

<210> 7  
 <211> 17  
 <212> DNA  
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<220>  
 <223> forward primer (GPX1)

<400> 7  
 ctcggcttcc cgtgcaa 17

<210> 8  
 <211> 19  
 <212> DNA  
 <213> Artificial

<220>  
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<400> 8  
 tgaagttggg ctcgaaccc 19

<210> 9  
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 <212> DNA  
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<220>  
 <223> probe (GPX1)

<400> 9  
 agtttgggca tcaggagaac gccaagaa 28

<210> 10  
 <211> 19  
 <212> DNA  
 <213> Artificial

GIES3002.ST25

<220>  
<223> forward primer (GAPDH)

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tgctgatgcc cccatgttc

19

<210> 11  
<211> 20  
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<220>  
<223> reverse primer (GAPDH)

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ggcagtgatg gcatggactg

20

<210> 12  
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<212> DNA  
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<220>  
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27

<210> 13  
<211> 222  
<212> PRT  
<213> Homo sapiens

<400> 13

Met Leu Ser Arg Ala Val Cys Gly Thr Ser Arg Gln Leu Ala Pro Ala  
1 5 10 15

Leu Gly Tyr Leu Gly Ser Arg Gln Lys His Ser Leu Pro Asp Leu Pro  
20 25 30

Tyr Asp Tyr Gly Ala Leu Glu Pro His Ile Asn Ala Gln Ile Met Gln  
35 40 45

Leu His His Ser Lys His His Ala Ala Tyr Val Asn Asn Leu Asn Val  
50 55 60

Thr Glu Glu Lys Tyr Gln Glu Ala Leu Ala Lys Gly Asp Val Thr Ala  
65 70 75 80

Gln Thr Ala Leu Gln Pro Ala Leu Lys Phe Asn Gly Gly Gly His Ile  
85 90 95

Asn His Ser Ile Phe Trp Thr Asn Leu Ser Pro Asn Gly Gly Gly Glu  
100 105 110

Pro Lys Gly Glu Leu Leu Glu Ala Ile Lys Arg Asp Phe Gly Ser Phe  
Page 3

115

120

125

Asp Lys Phe Lys Glu Lys Leu Thr Ala Ala Ser Val Gly Val Gln Gly  
 130 135 140

Ser Gly Trp Gly Trp Leu Gly Phe Asn Lys Glu Arg Gly His Leu Gln  
 145 150 155 160

Ile Ala Ala Cys Pro Asn Gln Asp Pro Leu Gln Gly Thr Thr Gly Leu  
 165 170 175

Ile Pro Leu Leu Gly Ile Asp Val Trp Glu His Ala Tyr Tyr Leu Gln  
 180 185 190

Tyr Lys Asn Val Arg Pro Asp Tyr Leu Lys Ala Ile Trp Asn Val Ile  
 195 200 205

Asn Trp Glu Asn Val Thr Glu Arg Tyr Met Ala Cys Lys Lys  
 210 215 220

<210> 14  
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 <212> DNA  
 <213> Homo sapiens

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 cagcaggcag ctggctccgg ctttggggta tctgggctcc aggcagaagc acagcctccc 180  
 cgacctgccc tacgactacg gcgccctgga acctcacatc aacgcgcaga tcatgcagct 240  
 gcaccacagc aagcaccacg cggcctacgt gaacaacctg aacgtcaccg aggagaagta 300  
 ccaggaggcg ttggccaagg gagatgttac agcccagaca gctcttcagc ctgcactgaa 360  
 gttcaatggt ggtggtcata tcaatcatag ctttttctgg acaaacctca gccctaacgg 420  
 tgggtggagaa cccaaagggg agttgctgga agccatcaaa cgtgactttg gttcctttga 480  
 caagttaaag gagaagctga cggctgcata tgttgggtgtc caaggctcag gttgggggttg 540  
 gcttggtttc aataaggaac ggggacactt acaaattgct gcttgtccaa atcaggatcc 600  
 actgcaagga acaacaggcc ttattccact gctggggatt gatgtgtggg agcacgctta 660  
 ctaccttcag tataaaaatg tcaggcctga ttatctaaaa gctatttgga atgtaatcaa 720  
 ctggggagaat gtaactgaaa gatacatggc ttgcaaaaag taaaccacga tcgttatgct 780  
 gagtatgtta agctctttat gactgttttt gtagtgggtat agagtactgc agaatacagt 840  
 aagctgctct attgtagcat ttcttgatgt tgcttagtca cttatttcat aaacaactta 900  
 atgttctgaa taatttctta ctaaacattt tgttattggg caagtgattg aaaatagtaa 960  
 atgctttgtg tgattg 976

GIES3002.ST25

<210> 15  
 <211> 497  
 <212> PRT  
 <213> Homo sapiens

<400> 15

Met Asn Gly Pro Glu Asp Leu Pro Lys Ser Tyr Asp Tyr Asp Leu Ile  
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 Ile Ile Gly Gly Gly Ser Gly Gly Leu Ala Ala Ala Lys Glu Ala Ala  
 20 25 30  
 Gln Tyr Gly Lys Lys Val Met Val Leu Asp Phe Val Thr Pro Thr Pro  
 35 40 45  
 Leu Gly Thr Arg Trp Gly Leu Gly Gly Thr Cys Val Asn Val Gly Cys  
 50 55 60  
 Ile Pro Lys Lys Leu Met His Gln Ala Ala Leu Leu Gly Gln Ala Leu  
 65 70 75 80  
 Gln Asp Ser Arg Asn Tyr Gly Trp Lys Val Glu Glu Thr Val Lys His  
 85 90 95  
 Asp Trp Asp Arg Met Ile Glu Ala Val Gln Asn His Ile Gly Ser Leu  
 100 105 110  
 Asn Trp Gly Tyr Arg Val Ala Leu Arg Glu Lys Lys Val Val Tyr Glu  
 115 120 125  
 Asn Ala Tyr Gly Gln Phe Ile Gly Pro His Arg Ile Lys Ala Thr Asn  
 130 135 140  
 Asn Lys Gly Lys Glu Lys Ile Tyr Ser Ala Glu Ser Phe Leu Ile Ala  
 145 150 155 160  
 Thr Gly Glu Arg Pro Arg Tyr Leu Gly Ile Pro Gly Asp Lys Glu Tyr  
 165 170 175  
 Cys Ile Ser Ser Asp Asp Leu Phe Ser Leu Pro Tyr Cys Pro Gly Lys  
 180 185 190  
 Thr Leu Val Val Gly Ala Ser Tyr Val Ala Leu Glu Cys Ala Gly Phe  
 195 200 205  
 Leu Ala Gly Ile Gly Leu Gly Val Thr Val Met Val Arg Ser Ile Leu  
 210 215 220  
 Leu Arg Gly Phe Asp Gln Asp Met Ala Asn Lys Ile Gly Glu His Met  
 225 230 235 240  
 Glu Glu His Gly Ile Lys Phe Ile Arg Gln Phe Val Pro Ile Lys Val

245

250

255

Glu Gln Ile Glu Ala Gly Thr Pro Gly Arg Leu Arg Val Val Ala Gln  
                   260                  265                  270

Ser Thr Asn Ser Glu Glu Ile Ile Glu Gly Glu Tyr Asn Thr Val Met  
           275                  280                  285

Leu Ala Ile Gly Arg Asp Ala Cys Thr Arg Lys Ile Gly Leu Glu Thr  
       290                  295                  300

Val Gly Val Lys Ile Asn Glu Lys Thr Gly Lys Ile Pro Val Thr Asp  
   305                  310                  315                  320

Glu Glu Gln Thr Asn Val Pro Tyr Ile Tyr Ala Ile Gly Asp Ile Leu  
                   325                  330                  335

Glu Asp Lys Val Glu Leu Thr Pro Val Ala Ile Gln Ala Gly Arg Leu  
           340                  345                  350

Leu Ala Gln Arg Leu Tyr Ala Gly Ser Thr Val Lys Cys Asp Tyr Glu  
       355                  360                  365

Asn Val Pro Thr Thr Val Phe Thr Pro Leu Glu Tyr Gly Ala Cys Gly  
       370                  375                  380

Leu Ser Glu Glu Lys Ala Val Glu Lys Phe Gly Glu Glu Asn Ile Glu  
   385                  390                  395                  400

Val Tyr His Ser Tyr Phe Trp Pro Leu Glu Trp Thr Ile Pro Ser Arg  
                   405                  410                  415

Asp Asn Asn Lys Cys Tyr Ala Lys Ile Ile Cys Asn Thr Lys Asp Asn  
           420                  425                  430

Glu Arg Val Val Gly Phe His Val Leu Gly Pro Asn Ala Gly Glu Val  
       435                  440                  445

Thr Gln Gly Phe Ala Ala Ala Leu Lys Cys Gly Leu Thr Lys Lys Gln  
       450                  455                  460

Leu Asp Ser Thr Ile Gly Ile His Pro Val Cys Ala Glu Val Phe Thr  
   465                  470                  475                  480

Thr Leu Ser Val Thr Lys Arg Ser Gly Ala Ser Ile Leu Gln Ala Gly  
           485                  490                  495

Cys

GIES3002.ST25

<211> 1314  
<212> DNA  
<213> Homo sapiens

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gctctgcgtc ggggtgaaacc agacaaagcc gcgagcccag ggatgggagc acgcggggga 120  
cggcctgccg gcggggacga cagcattgctg cctgggtgca gcagtgtgctg tctcggggaa 180  
gggaagatat ttttaaggcgt gtctgagcag acggggaggc ttttccaaac ccaggcagct 240  
tcgtggcgtg tgcggtttcg acccggtcac acaaagcttc agcatgtcat gtgaggacgg 300  
tcggggccctg aaaggaacgc tctcggaatt ggccgcggaa accgatctgc ccgttgtgtt 360  
tgtgaaacag agaaagatag gcggccatgg tccaaccttg aaggcttatc aggagggcag 420  
acttcaaaaag ctactaaaaa tgaacggccc tgaagatctt cccaagtcct atgactatga 480  
ccttatcatc attggaggtg gctcaggagg tctggcagct gctaaggagg cagcccaata 540  
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tcttgaggga acatgtgtga atgtgggttg catacctaaa aaactgatgc atcaagcagc 660  
tttgtttagga caagccctgc aagactctcg aaattatgga tggaaagtcg aggagacagt 720  
taagcatgat tgggacagaa tgatagaagc tgtacagaat cacattggct ctttgaattg 780  
gggctaccga gtagctctgc gggagaaaaa agtcgtctat gagaatgctt atgggcaatt 840  
tattggtcct cacaggatta aggcaacaaa taataaaggc aaagaaaaaa tttattcagc 900  
agagagtttt ctcattgcca ctggtgaaag accacgttac ttgggcatcc ctggtgacaa 960  
agaatactgc atcagcagtg atgatctttt ctccttgctt tactgcccgg gtaagaccct 1020  
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aggcgtcact gttatggtta ggtccattct tcttagagga tttgaccagg acatggccaa 1140  
caaaattggt gaacacatgg aagaacatgg catcaagttt ataagacagt tcgtaccaat 1200  
taaagttgaa caaattgaag cagggacacc aggccgactc agagtagtag ctcagtcac 1260  
caatagttag gaaatcattg aaggagaata taatacgggtg atgctggcaa tagg 1314

<210> 17  
<211> 201  
<212> PRT  
<213> Homo sapiens

<400> 17

Met Cys Ala Ala Arg Leu Ala Ala Ala Ala Ala Gln Ser Val Tyr Ala  
1 5 10 15  
Phe Ser Ala Arg Pro Leu Ala Gly Gly Glu Pro Val Ser Leu Gly Ser  
20 25 30  
Leu Arg Gly Lys Val Leu Leu Ile Glu Asn Val Ala Ser Leu Cys Gly  
35 40 45

GIES3002.ST25

Thr Thr Val Arg Asp Tyr Thr Gln Met Asn Glu Leu Gln Arg Arg Leu  
50 55 60

Gly Pro Arg Gly Leu Val Val Leu Gly Phe Pro Cys Asn Gln Phe Gly  
65 70 75 80

His Gln Glu Asn Ala Lys Asn Glu Glu Ile Leu Asn Ser Leu Lys Tyr  
85 90 95

Val Arg Pro Gly Gly Gly Phe Glu Pro Asn Phe Met Leu Phe Glu Lys  
100 105 110

Cys Glu Val Asn Gly Ala Gly Ala His Pro Leu Phe Ala Phe Leu Arg  
115 120 125

Glu Ala Leu Pro Ala Pro Ser Asp Asp Ala Thr Ala Leu Met Thr Asp  
130 135 140

Pro Lys Leu Ile Thr Trp Ser Pro Val Cys Arg Asn Asp Val Ala Trp  
145 150 155 160

Asn Phe Glu Lys Phe Leu Val Gly Pro Asp Gly Val Pro Leu Arg Arg  
165 170 175

Tyr Ser Arg Arg Phe Gln Thr Ile Asp Ile Glu Pro Asp Ile Glu Ala  
180 185 190

Leu Leu Ser Gln Gly Pro Ser Cys Ala  
195 200

<210> 18  
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<212> DNA  
<213> Homo sapiens

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gaggcaccac ggtccgggac tacaccaga tgaacgagct gcagcggcg ctcggacccc 240  
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tgcgggaggc cctgccagct cccagcgacg acgccaccgc gcttatgacc gacccaagc 480  
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GIES3002.ST25

ccccggctgc ttggcagttg cagtgcctgt gtctcggggg ggttttcatc tatgaggggtg 720  
 tttcctctaa acctacgagg gaggaacacc ttgatcttac agaaaatacc acctcgagat 780  
 gggtgctggg cctgttgatc ccagtctctg ccagaccaag gcgagtttcc ccactaataa 840  
 agtgccgggt gtcagc 856

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 <212> DNA  
 <213> Artificial

<220>  
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<210> 20  
 <211> 60  
 <212> DNA  
 <213> Artificial

<220>  
 <223> probe (TXNRD1)

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<210> 21  
 <211> 60  
 <212> DNA  
 <213> Artificial

<220>  
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<210> 22  
 <211> 60  
 <212> DNA  
 <213> Artificial

<220>  
 <223> probe (GPX3)

<400> 22  
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